

ABSTRACT OF THE DISCLOSURE

[0091] A system and method are provided for both recharging and communicating with a stimulator having a rechargeable battery, which stimulator is implanted deeply in the body, in particular where the stimulator is a microstimulator, the system includes a base station and an external device, for instance a chair pad. The chair pad may contain an antenna/charging coil and a booster coil. The antenna/charging coil can be used for charging the rechargeable battery and also for communicating with the stimulator using frequency shift keying and on-off keying. The booster coil can be used to recharge a battery depleted to zero volts. The base station connected to the chair pad may be used to power the antenna/charging coil and the booster coil.